

GCE AS

**Health and
Social Care**

Summer 2009

Mark Schemes

Issued: October 2009

**NORTHERN IRELAND GENERAL CERTIFICATE OF SECONDARY EDUCATION (GCSE)
AND NORTHERN IRELAND GENERAL CERTIFICATE OF EDUCATION (GCE)**

MARK SCHEMES (2009)

Foreword

Introduction

Mark Schemes are published to assist teachers and students in their preparation for examinations. Through the mark schemes teachers and students will be able to see what examiners are looking for in response to questions and exactly where the marks have been awarded. The publishing of the mark schemes may help to show that examiners are not concerned about finding out what a student does not know but rather with rewarding students for what they do know.

The Purpose of Mark Schemes

Examination papers are set and revised by teams of examiners and revisers appointed by the Council. The teams of examiners and revisers include experienced teachers who are familiar with the level and standards expected of 16- and 18-year-old students in schools and colleges. The job of the examiners is to set the questions and the mark schemes; and the job of the revisers is to review the questions and mark schemes commenting on a large range of issues about which they must be satisfied before the question papers and mark schemes are finalised.

The questions and the mark schemes are developed in association with each other so that the issues of differentiation and positive achievement can be addressed right from the start. Mark schemes therefore are regarded as a part of an integral process which begins with the setting of questions and ends with the marking of the examination.

The main purpose of the mark scheme is to provide a uniform basis for the marking process so that all the markers are following exactly the same instructions and making the same judgements in so far as this is possible. Before marking begins a standardising meeting is held where all the markers are briefed using the mark scheme and samples of the students' work in the form of scripts. Consideration is also given at this stage to any comments on the operational papers received from teachers and their organisations. During this meeting, and up to and including the end of the marking, there is provision for amendments to be made to the mark scheme. What is published represents this final form of the mark scheme.

It is important to recognise that in some cases there may well be other correct responses which are equally acceptable to those published: the mark scheme can only cover those responses which emerged in the examination. There may also be instances where certain judgements may have to be left to the experience of the examiner, for example, where there is no absolute correct response – all teachers will be familiar with making such judgements.

The Council hopes that the mark schemes will be viewed and used in a constructive way as a further support to the teaching and learning processes.

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Rewarding Learning

**ADVANCED SUBSIDIARY (AS)
General Certificate of Education
2009**

Health and Social Care

Assessment Unit AS 3

assessing

Unit 3: Health and Well-being

[A3H31]

TUESDAY 2 JUNE, MORNING

**MARK
SCHEME**

1 (a) Explain the following concepts (AO1)**Health**

[1] for key phrase/s, [2] for full explanation

Answers may include:

- It is generally agreed that there is more than one dimension to health – physical, social, emotional, mental, spiritual, environmental (any three of these will gain [2])
- Health means different things to different people
- Health is a positive concept that suggests well-being as opposed to illness or disease
- Health is the absence of disease/not just the absence of disease
- Health can be influenced by lifestyle factors.

Disease

[1] for key phrase/s, [2] for full explanation

Answers may include:

- Disease is a diagnostic label given to a set of signs and symptoms
- Disease is a condition or process which can affect the functioning of the body physically or mentally. For example Alzheimer's disease
- Disease is a state of being which is the opposite of health
- Disease is long-term
- Disease can be communicable or non-communicable
- Disease can result from injuries, accidents or infections.

Stress

[1] for key phrase/s, [2] for full explanation

Answers may include:

- The response that occurs when people feel tension or think they cannot cope with the pressures/stimuli in their environment, e.g. work, a bereavement
- Stress can be a short-term physical response – alarm which triggers “fight or flight”
- Stress can be a long/er term response which may result in physical symptoms such as nausea, anorexia, high blood pressure, ulcers, depression, lowered immunity etc.
- Stress can be positive and exhilarating – eustress
- A disturbance of physical or mental well-being.

(3 × [2])

[6]

(b) Discuss **two** ways Aldo's ill-health may affect his **psychological** well-being. (AO1, AO2, AO3)

[1] for key phrase/s, [2] for explanation, [3] for fuller discussion of each way

Aldo may:

- Feel down/sad/unhappy
- Feel anxious/worried
- Be stressed
- Develop depression in the longer term
- Have a negative self-concept/low self-esteem
- Feel emotionally insecure/vulnerable/trapped
- Find inner strength to deal with illness and therefore have a positive self-concept.
- Experience anger and frustration
- Feel guilty that he is a burden to his family

- Feel lonely and isolated
 - Be affected by the self-fulfilling prophesy based on negative prognosis
- (2 × [3]) [6]

(c) Explain **two** ways the National Health Service (NHS) may contribute to Aldo's health and well-being. (AO1, AO2)

[1] for use of key phrase/s, [2] for full explanation of each way

Answers may include:

- Provide him with treatment /free health care
- Provide him with hospital care and treatment if necessary
- Provide GP services
- Provide specialist medical and nursing care for his condition, e.g. neurologist
- Provide drug treatments
- Provide information on his illness, possible treatments and additional services available
- Provide occupational therapy services to help him manage his condition, e.g. wheelchair
- Provide physiotherapy services to help with coordination and movement
- Provide emotional support, e.g. counselling and access to support groups
- Conduct research to improve treatment

(2 × [2]) [4]

(d) Explain **three different** ways a voluntary organisation might contribute to the health and well-being of clients like Aldo. (AO1, AO2, AO3)

[1] for use of key phrase/s, [2] for explanation

Answers may include:

- May provide care, e.g. a day centre, home care worker, respite
- May provide a range of services, e.g. transport, housing, specialist equipment
- May give Aldo advice about how to manage his condition
- May provide a listening ear/counselling to support Aldo emotionally
- May give Aldo the opportunity to meet others with similar problems – support group
- May provide Aldo with information, e.g. leaflets on motor neurone disease or website giving advice about the help available
- May provide advocacy services, e.g. to help Aldo access benefits
- May campaign/lobby government, e.g. to improve services for sufferers or raise awareness or promote rights
- May conduct research so the condition is better understood/treated
- May raise funds to support care or treatment

(3 × [2]) [6]

- (e) Discuss the possible social effects of Aldo's ill-health on his family's education, leisure activities and employment.
(AO1, AO2, AO3, AO4)

[1] for key phrase/s, [2] for explanation, [3] for fuller discussion of each of the following:

Education

- Enrico may be worried about Aldo and lose concentration at school, which could affect his educational achievement
- Aldo and Jill may be less able to support Enrico with his homework due to Aldo's ill-health
- Aldo may have more time to spend on Enrico's education as he is at home much more.
- Enrico may miss school if Aldo becomes very ill
- If Enrico is bullied at school about his father being different, he may find it difficult to concentrate on his studies
- If the family income is reduced due to Aldo's illness, paying for educational costs may be a problem, e.g. Enrico may miss out on trips
- Jill's continuing education may be negatively affected, e.g. she may have to give up postgraduate studies she may be undertaking.

Leisure activities

- Aldo's family may not be able to engage in leisure activities as a family group as much as they did previously
- Jill and Enrico may have to give up their own leisure activities, e.g. membership of clubs
- Aldo may not be available to support Enrico in maintaining his leisure activities
- Family members may change to different activities that they can do at home so they don't have to leave Aldo, e.g. art and craft.

Employment

- Jill's employment may be affected because she may have to stay off work to look after Aldo when he is unable to cope because of his condition
- Days off to care for Aldo or time off for his medical appointments could affect Jill's chances of promotion
- Jill may have to consider cutting down on or giving up her work

(3 × [3])

[9]

31

- 2 (a) Complete the table below to describe the different approaches to health promotion. (AO1, AO2, AO3)

[1] for key phrase/s, [2] for explanation, [3] for fuller description

Medical – this expert-led approach aims to prevent ill health. It focuses on preventative measures such as immunisation and screening, e.g. promoting the MMR vaccine to prevent children from suffering from measles, mumps or rubella.

Educational – this approach aims to provide information and knowledge so individuals can make informed choices about their health behaviour, e.g. information on what constitutes a healthy diet.

Use of Fear arousal – this approach attempts to gain the target audience’s attention by showing them frightening images or statistics in an effort to change their behaviour, e.g. blood clot in brain TV advertisement.

Social approach – this approach acknowledges the importance of socio-economic conditions, e.g. housing, income in determining health. It is a top-down approach with policy makers and health planners taking the lead – an example is the government’s smoking ban.

(4 × [3]) [12]

- (b) Write down **two** strengths and **two** weaknesses of the use of the empowerment approach to health promotion. (AO4)

Strengths

- People feel they are making the decision themselves
- Helps people to identify their own concerns and gives them the skills to act upon them
- Is a bottom-up approach – gives the power to the individual or group – is client centred, letting clients express their needs and feelings
- Sees health as the property of the individual.

(2 × [1]) [2]

Weaknesses

- Only really works with those who recognise a problem and are motivated enough to want to make changes
- Depends on clients having good leadership in the first instance
- It is a long-term approach – no good if change is desired sooner rather than later
- Difficult to quantify or measure changes in behaviour using this approach
- Tends to target only a small audience
- Once support is taken away, individuals may falter
- May be difficult to get funding or it may be short-term.

(2 × [1]) [2]

- (c) Write down **two** strengths and **two** weaknesses of the behaviour change approach to health promotion. (AO4)

Strengths

- Encourages personal change – shows individuals how they can take action
- Not imposed by others
- Sees health as the property of the individual
- Appeals to the “adult” in people
- Provides a straightforward message to encourage sensible lifestyle choices to be made, rather than a lot of complex information.

(2 × [1]) [2]

Weaknesses

- Behaviour is not easy to change
- It is difficult to measure if change has taken place because it may not occur for a long time after the health promotion activity or intervention
- Target is susceptible to outside influences
- Intentions are not always followed through or change may be short-term
- People dislike being told what to do.

(2 × [1]) [2]

- (d) Choose a health promotion campaign with which you are familiar and analyse how it attempted to address health promotion targets.
(AO1, AO2, AO3)

Mark Band 1 ([0]–[2])

Overall impression: limited understanding

- Displays limited knowledge of how the health promotion campaign attempted to address health promotion targets
- Answers that do not refer to targets cannot score beyond this band
- There is little or no evidence of analytical writing
- Quality of written communication is basic.

Mark Band 2 ([3]–[4])

Overall impression: adequate knowledge and understanding

- Displays adequate knowledge of how the health promotion campaign attempted to address health promotion targets
- There must be some reference to targets to score in this band
- There is some evidence of analytical writing
- Quality of written communication is good.

Mark Band 3 ([5]–[6])

Overall impression: competent knowledge and understanding

- Displays very good to excellent knowledge of how the health promotion campaign attempted to address health promotion targets
- The targets being addressed must be clearly identified in this band
- There is clear evidence of analytical writing
- Effective written communication.

Answers may include the following points:

- Raises awareness
- Frightens the target group
- Provides information
- Encourages behaviour change
- Explains the consequences of behaviour
- Stimulates debate
- Provides visual images, e.g. posters, television advertisements
- Provides statistics
- Empowers audience
- Encourages healthy lifestyle choices

Targets must be clearly identified (i.e. an increase or reduction) but do not need to be statistically precise.

This list is not exhaustive and candidates may use examples other than those identified above – these may be accepted if they are relevant and valid.

[6]

26

- 3 (a) Using the following headings discuss how individuals can take responsibility for their own health and well-being.

Lifestyle Choices

[1] for use of key phrase/s, [2] for explanation, [3] for fuller discussion, e.g. healthy diet, exercising, limiting alcohol intake, not smoking can contribute to an individual's physical, social and psychological well-being

Self advocacy

- e.g. asking a G.P. for a referral to a specialist, asking a hospital doctor for a referral to another doctor for a second opinion or researching one's own condition and possible treatments in libraries or on the internet can ensure an individual gets the most up-to-date treatment.

(2 × [3])

[6]

- (b) Explain **two different** ways the World Health Organisation contributes to health and well-being.

[1] for use of key phrase/s, [2] for full explanation of each way

Answers may include:

- Combats disease by organising vaccination programmes, e.g. for malaria
- Provides statistics on the spread of disease across the world, e.g. AIDS
- Co-ordinates health promotion activities globally, e.g. to combat obesity, to boost consumption of fruits and vegetables worldwide, or to discourage tobacco consumption
- Provides information on health risks globally, e.g. on risk of SARs and how to avoid it
- Conducts, funds and disseminates research, e.g. into health effects of mobile phone use
- Makes recommendations about health behaviour, e.g. one WHO report recommended that sugar be no more than 10% of a healthy diet
- Monitors the health status of developing countries
- Facilitates emergency aid, e.g. at request of UN
- Sets international standards, e.g. for food and pharmaceutical products
- Raises awareness of social health problems, e.g. media releases about outbreaks of disease
- Produces policies on health that governments can share

(2 × [2])

[4]

- (c) Discuss the **different** roles of **two** commercial organisations which contribute to health promotion and disease prevention.

[1] for use of key phrase/s, [2] for explanation, [3] for fuller discussion of each one (AO1, AO2, AO3)

- A pharmacy such as Boots may:
 - Provide treatments – vitamin supplements etc.
 - Advise individuals on health issues, e.g. having pharmacist available to speak to free of charge
 - Measure health indicators, e.g. BP, blood sugar etc.
 - Promote healthy living through campaigns
 - Dispense medicine
- A drug company may:
 - conduct research on health conditions
 - produce new effective drug treatments
 - provide information about how drugs work
- Private practitioners may:
 - provide a variety of treatments
 - give advice on health problems
 - provide screening.

Also accept other commercial organisations such as high street retailer, supermarkets, private gyms, private health insurance companies as long as clearly related to contributing to health promotion and disease prevention. Do not accept repetition of roles.

(2 × [3])

[6]

- (d) Discuss how each of the following environmental factors could affect **physical** health and well-being. (AO1, AO2, AO3)

Pollution

[1] for use of key phrase/s, [2] for explanation, [3] for fuller discussion

Answers may include:

- Vehicles and factories releasing toxic fumes into the atmosphere can lead to individuals developing respiratory infections such as bronchitis
- In more severe cases the long-term effects of air pollution can include chronic respiratory disease, lung cancer, heart disease, and even damage to the brain, nerves, liver, or kidneys
- Smoking can also cause air pollution as it lingers in the air for some time after someone has been smoking. It is almost completely odourless therefore people aren't aware they are breathing it in
- Run off from fields in rural areas can pollute drinking water with chemicals
- Noise pollution, e.g. from air traffic can disrupt sleep patterns.

This list is not exhaustive and candidates may use examples other than those identified above – these may be accepted if they are relevant and valid.

Access to health services

[1] for use of key phrase/s, [2] for explanation, [3] for fuller discussion

Answers may include:

- People who are able to access services, perhaps because they have higher levels of education and are more knowledgeable about health, will be able to get early diagnosis and treatment of illnesses, thus enhancing their physical health
- People who do not have good access to health services, perhaps because their local GP practice is oversubscribed, may find that their condition deteriorates and they become quite ill before they can get treatment for their condition
- People who can access services that focus on prevention can avoid illnesses which they might otherwise have had, e.g. clients who are offered appointments for flu injections.

This list is not exhaustive and candidates may use examples other than those identified above – these may be accepted if they are relevant and valid.

(2 × [3])

[6]

- (e) Using examples, discuss how discriminatory practice in health and social care settings can impact on the health and well-being of clients.
(AO1, AO2, AO3, AO4)

Mark Band 1 ([0]–[3])

Overall impression: basic understanding.

- Displays limited knowledge of how discriminatory practice in health and social care settings can impact on the health and well-being of clients
- There is little or no evidence of analytical writing
- Limited evidence of examples or none at all
- Quality of written communication is basic.

Mark Band 2 ([4]–[6])

Overall impression: adequate knowledge and understanding.

- Displays adequate knowledge of how discriminatory practice in health and social care settings can impact on the health and well-being of clients
- There is some evidence of analytical writing
- An adequate range of examples is included
- Quality of written communication is good.

Mark Band 3 ([7]–[9])

Overall impression: competent knowledge and understanding.

- Displays very good to excellent knowledge of how discriminatory practice in health and social care settings can impact on the health and well-being of clients
- There is clear evidence of analytical writing
- A good range of examples is included
- Very effective written communication.

Answers may include the following points:

Examples of discriminatory practice

- Not consulting clients about dietary requirements
- Not asking clients about spiritual needs or religious practices
- Not offering clients the services of a translator if they do not understand what is being said
- Not offering the services of an advocate if client has problems in terms of self-advocacy
- Verbal abuse, e.g. discriminatory remarks from other patients or staff and in extreme cases physical abuse, e.g. hitting
- Staff failing to challenge discriminatory remarks from others
- Staff deliberately ignoring or isolating clients
- Resources not reflecting different cultures, e.g. books in an early years setting only having pictures of white people.

Impact on the health and well-being of clients

- Clients could feel disempowered, i.e. that they have no control over what is happening to them
- Clients could feel undervalued by both staff and other clients and could have low self-esteem as a result
- A sense of isolation – clients may feel that they are disliked by other clients, resulting in limited interaction with others in the setting – become withdrawn

- Clients could experience a variety of negative emotions, such as sadness or anger, which could have a detrimental effect on their medical conditions or mental health
- Clients may feel they no longer want to attend the setting because they feel unsafe, e.g. a day centre
- Clients may be very distressed and may exhibit the physiological effects of stress – loss of appetite or may not be able to sleep
- Clients may become aggressive, e.g. may hit out at staff or other clients
- Clients may start to treat others unfairly, e.g. engage in name calling
- Clients may have physical injuries
- Clients' intellectual development may be negatively affected, e.g. excluded from stimulating activities

This list is not exhaustive and candidates may use examples other than those identified above – these may be accepted if they are relevant and valid. [9]

- (f) Analyse how income can affect the health and well-being of individuals. (AO1, AO2, AO3, AO4)

Mark Band ([0]–[4])

Overall impression: basic understanding.

- displays limited knowledge of how income can affect the health and well-being of individuals
- may be no evidence of analytical writing
- quality of written communication is basic.

Mark Band ([5]–[8])

Overall impression: adequate knowledge and understanding.

- displays adequate knowledge of how income can affect the health and well-being of individuals
- some evidence of analysis
- quality of written communication is good.

Mark Band ([9]–[12])

Overall impression: competent knowledge and understanding.

- displays a very good knowledge of how income can affect the health and well-being of individuals
- to achieve in this band answers must make reference to the effects on all three aspects of health and well-being – physical, social and psychological
- good evidence of analysis
- effective written communication.

Answers may address some of the following points:

Effects on physical health and well-being

- People with a higher income have a longer life expectancy. This is because they can afford a better diet and live in better conditions so are less likely to get illnesses
- People with higher incomes may be able to access specialist health services more quickly by paying privately or because they have been able to afford private health insurance

- People who have low incomes may experience greater stress and are more prone to illnesses, although people on high incomes based on demanding jobs also experience stress
- Older people who live in poverty have a 3 to 4 times greater risk of having a physical dysfunction than older people who have higher income
- Breast cancer is shown to be more frequent in women who earn more. This is probably because of delayed childbearing due to their careers, as this is a major risk factor. However women with high incomes are more likely to survive the disease, probably due to being able to afford better care and better living standards
- People with low incomes may have poorer quality of housing which may be linked to health problems
- Children from low-income families are over three times more likely to be in poor health than children from families with higher incomes
- Infant mortality rates are higher in families with low incomes. This is because they live in poor housing and are less likely to continue to go to access health checks after the birth, perhaps because they can't afford transport
- People with low incomes tend to smoke more; smoking causes more health problems like cancer and respiratory problems
- A man from a higher income family lives on average seven years longer than a man from a lower income
- People on low incomes may work long hours to get more money, this leaves less time to visit the doctors if they are ill. They are more likely to be in jobs where there is little flexibility for getting away for appointments
- People with low incomes often live in areas that have levels of pollution that cause illness. In contrast those with higher incomes can afford to live outside of built up areas where there is less pollution
- People on high incomes are often covered by private medical insurance. This means they may have better treatment and receive it more quickly. Those with lower incomes can't afford this and sometimes face long waiting lists for hospital appointments
- Children from low-income families are at greater risk of death or injury from being hit by a motor vehicle than the children of higher income parents, who are more likely to be able to let their children play safely within sight or earshot in private gardens
- The children of low paid adults are more likely to be left to their own devices during school holidays and out of school hours, which also leaves them more vulnerable to accidents

Effects on social health and well-being

- People on high incomes can afford more social activities, e.g. going out for dinner with friends
- People on low incomes may find it difficult to afford to socialise by going out or entertaining friends at home.

Effects on psychological health and well-being

- People with high incomes can afford to join clubs, have holidays, take part in more leisure activities, which reduces stress and makes them happy. Those with low incomes can't do this and may feel bored and stressed

- People on low incomes are more prone to depression than wealthier people
- People on low incomes may have low self-esteem because they may feel they are not providing adequately for their families.
- People on high incomes can buy services to improve psychological health and well-being, e.g. complementary therapies, private counselling.

This list is not exhaustive and candidates may use examples other than those identified above – these may be accepted if they are relevant and valid.

[12]

Total

**AVAILABLE
MARKS**

43

100



Rewarding Learning

ADVANCED SUBSIDIARY (AS)
General Certificate of Education
2009

Health and Social Care

Assessment Unit AS 5

assessing

Unit 5: Adult Client Groups

[A3H51]

WEDNESDAY 3 JUNE, MORNING

**MARK
SCHEME**

1 (a) Explain the following terms: (AO1)

Disability

[1] for use of key phrase/s [2] for full explanation

Answers reflect the following:

- Loss or reduction of functional ability
- The lack or loss of ability to carry out activities or functions
- Functional limitations to everyday living
- Anatomical, physiological or psychological abnormality
- The social disadvantage faced by those people who have impairments

Accept answers specific to Pauline if they demonstrate understanding of “disability”

(1 × [2])

[2]

Concept of “need”

[1] for use of key phrase/s [2] for full explanation

Answers may include:

- Essential requirements which are met in order to ensure that the individual reaches a state of health and well being
- May include physical, social, emotional, intellectual, cultural and spiritual needs
- Workers can use a framework to assess individuals needs
- Assessing needs framework may also include areas such as safe environment, communication, mobilising, sleeping

Accept answers specific to Pauline if they demonstrate understanding of “need”

(1 × [2])

[2]

(b) Explain **two different** ways each of the following professional services contributes to the provision of care for clients such as Pauline. (AO1, AO2)

Social Work

[1] for use of key phrase/s [2] for full explanation of each way identified

Any **two** of the following should be **explained** for [4] to be awarded:

- Identifying and assessing client’s needs, e.g. suitable care home
- Problem solving
- Enabling individuals and families to manage their lives more easily
- Identifying plans of care
- Liaising with the multidisciplinary team
- Liaising with relevant agencies – inter-agency working
- Supporting clients, e.g. providing information, meeting emotional needs
- Managing care plans
- Writing reports
- Contributes to research

- Advocates on behalf of clients
- Accessing financial support
- Provision of counselling and therapeutic interventions

(2 × [2])

[4]

District nursing

[1] for use of key phrase/s [2] for full explanation of each way identified

Any **two** of the following should be **explained** for [4] to be awarded:

- Completes home visits to support clients living in the community
- Can talk to the patient – inform them about their condition and proposed treatment
- Can provide direct physical care – toileting, wound treatment, etc.
- Can liaise with other health and social care professionals to ensure patient receives best care or holistic care
- Can assess the patients’ needs and implement and monitor the care plan
- Can advocate on behalf of a patient
- Can empower patients
- Can administer medication
- Community level – health promotion/education
- Can identify and report ill-treatment
- Can keep records updated, write reports – for continuity of care

(2 × [2])

[4]

Answers must demonstrate knowledge of professional roles

(c) Write down **two** key features of the “social model” of disability. (AO1)

[1] for each key feature

- Disability is socially constructed
- Society has the problem as opposed to the individual
- It is rarely the “impairment” which disables people, rather society
- Emphasis on need for society to be educated about disability
- The individual should be supported to follow chosen lifestyle, e.g. live in the community
- Emphasis on need for empowerment of clients
- Focuses on the individual rather than the “label” given to them
- Holistic response to the individual
- Range of professional services offered – these include psychological therapies, alternative and complementary therapies and social services
- Disabled have a right to be treated equally and to have facilities designed in such a way as to facilitate their needs

(2 × [1])

[2]

(d) Explain **two** ways care workers at the unit could meet Pauline’s emotional needs. (AO1, AO2)

[1] for use of key phrase or example, [2] for clear link to meeting emotional needs

Answers may include the following:

- By listening to her opinions, showing respect, making her feel valued
- By encouraging visitors to promote personal relationships

- By spending time with her
- By involving her in activities to raise her self-esteem
- By encouraging her to retain her independence
- By empowering her to make her own decisions
- Helping her to get to know the other residents and make new friends, feeling welcomed

Should be related to how staff at the unit can meet Pauline's emotional needs

(2 × [2])

[4]

- (e) Discuss the role of advocacy for Pauline.
(AO1, AO2, AO3)

Mark Band 1 ([0]–[2])

Overall impression: limited understanding

- Displays limited knowledge of the role of advocacy for Pauline
- Little or no evidence of analytical writing
- Quality of written communication is basic

Mark Band 2 ([3]–[4])

Overall impression: adequate knowledge and understanding

- Displays adequate knowledge of the role of advocacy for Pauline
- Some evidence of analytical writing
- Quality of written communication is good

Mark Band 3 ([5]–[6])

Overall impression: competent knowledge and understanding

- Displays a competent knowledge of the role of advocacy for Pauline
- Clear evidence of analytical writing
- Effective written communication

Answers may address some of the following points:

- An advocate will talk to the health and social care professionals, either on Pauline's behalf or with her to enable her to make her case about her needs and how they can be met – reduces stress on client
- An advocate is an independent person who understands Pauline's concerns and worries and is able to convey these to the multidisciplinary teams – may be a professional or family member
- An advocate may also help Pauline to talk to her family and friends about her needs and wants
- An advocate has often been trained in rights and is therefore able to argue Pauline's case regarding her rights with the staff team, rather than being constrained by the easiest or cheapest care package for Pauline
- The advocate may help Pauline to express her own opinion about her wishes or requirements, improving her self-esteem

This list is not exhaustive and candidates may use examples other than those identified above – these may be accepted if they are relevant and valid.

[6]

- (f) Analyse the contribution of the Disability Discrimination Act (1995) to the lives of disabled people. (AO1, AO2, AO3, AO4)

Mark Band 1 ([0]–[3])

Overall impression: limited understanding

- Displays limited knowledge of the contribution the DDA makes to the lives of disabled people
- Little or no evidence of analytical writing
- Quality of written communication is basic

Mark Band 2 ([4]–[7])

Overall impression: adequate knowledge and understanding

- Displays adequate knowledge of the contribution the DDA makes to the lives of disabled people
- At least two of the ways the DDA contributes to the lives of disabled people should be discussed to achieve in this band and at least three to achieve at the top of this mark band
- Quality of written communication is good

Mark Band 3 ([8]–[10])

Overall impression: competent knowledge and understanding

- Displays a competent knowledge of the contribution the DDA makes to the lives of disabled people
- Good evidence of analysis – more than three ways the DDA contributes to the lives of disabled people should be discussed to achieve at the top of this mark band
- Effective written communication

Answers may address some of the following:

- Provides a route for redress, e.g. compensation if discrimination occurs in the workplace
- Raises awareness of difficulties faced by client group
- Promotes rights and equality for disabled people and prevents unfair treatment, e.g. in buying or renting property, in accessing goods, in seeking employment
- Promotes inclusion of disabled people, e.g. through improved accessibility of buildings
- Helps to reduce stigma and stereotypical attitudes towards disabled
- Improves perception of disabled people, e.g. makes them more accepted and improves self-confidence
- Promotes sense of empowerment among disabled people, can choose to access public transport independently
- Requires policies to be in place to eradicate discrimination in care settings
- Requires colleges and universities to provide equal access, with the provision of extra help and special equipment so people with disabilities can take part in class

This list is not exhaustive and candidates may use examples other than those identified above – these may be accepted if they are relevant and valid.

[10]

34

2 (a) Explain what is meant by the term “stigma”. (AO1)

[1] for use of key phrase/s [2] for full explanation

Answers may include:

The experience of being labelled and feeling undervalued – as a result of prejudice and discrimination, feeling people are afraid of you or will think less of you because of stereotypical views about mental illness

(1 × [2])

[2]

(b) Explain **three** ways discrimination can affect adults, such as Peter, with mental health problems. (AO1, AO2)

[1] for each way identified from the following:

- May have low self-esteem
- May feel disempowered
- May feel marginalised/left out/isolated
- May feel labelled
- May feel a burden
- May become upset/tearful/sad/hurt/angry
- May become withdrawn – can affect family relationships
- May not have problems with employment
- May lose his appetite/lose weight
- Sleep pattern may be affected
- May begin to believe the stereotypes
- May feel frightened/scared/vulnerable
- May experience loss of dignity
- Sense of belonging may be negatively affected
- May feel inferior/self-conscious
- May feel unwanted/lead to substance abuse
- May feel neglected
- May become more depressed/mental health issues
- Mental health may deteriorate and he may become suicidal/detain to hospital
- Self-confidence may be affected/low motivation
- May deter clients from accessing care
- May experience stress
- May neglect themselves, e.g. personal hygiene

(3 × [2])

[6]

This list is not exhaustive and candidates may use examples other than those identified above – these may be accepted if they are relevant and valid.

(c) Explain **one** advantage and **one** disadvantage of categorising an individual like Peter as “an adult with mental health needs”. (AO1, AO2)

[1] for use of key phrase/s [2] for full explanation

Answers may include one of the following:

Advantages

- Existing services developed appropriately to meet specific needs
- New services planned accordingly to need
- Access to services – eligibility criteria met
- Access to social security benefits – entitlement according to specified need
- Informal support network of other people within same client group
- Lobbying potential of organisations and government bodies
- Influence on policy-making decisions and legislation
- Funding arrangements clearer – these include grant application, voluntary contributions and statutory funding
- Helps to define clients’ problems more clearly, enabling them to access specialist services

Disadvantages

- Individual needs not always addressed – focused on general needs of group
- Impact of attitudes – potential for stereotyping, prejudice and stigma to be negatively associated with specific client groups
- Labelling theory – relevance to self-concept and “sick role”
- Potential for institutional discrimination and oppression – for example, in recruitment and employment practices
- Access to services dependent on “diagnostic” label
- Resources allocated to wider range of clients groups and needs rather than directed at individual need

(2 × [2])

[4]

(d) Explain **three** ways a psychiatrist could provide care for clients with mental health problems. (AO1, AO2)

[1] for use of key phrase/s [2] for full explanation

Answers may include:

- Provide medical assessment
- Develops care plan which is monitored
- Prescribe medication/medical treatment
- Provide therapies and counselling support
- Write reports/update records on client’s condition
- Refer to other health professionals or organisations
- May be involved in research activities
- Can be involved in detaining/sectioning clients under mental health legislation
- Provide information about mental health to clients and their families

This list is not exhaustive and candidates may use examples other than those identified above – these may be accepted if they are relevant and valid.

(3 × [2])

[6]

- (e) Under the Mental Health (NI) Order 1986/The Mental Health Act 1983 clients can be “detained”/“sectioned”. Explain what is meant by this. (AO1, AO2)

[1] for use of key phrase/s [2] for full explanation

- The compulsory admission to hospital of someone who has a mental illness and is a danger to themselves or someone else
- (1 × [2]) [2]

- (f) Discuss the impact of the Mental Health (Northern Ireland) Order 1986/The Mental Health Act 1983 on adults with mental health needs. (AO1, AO2, AO3, AO4)

Mark Band 1 ([0]–[3])

Overall impression: limited understanding

- Displays limited understanding of how the Mental Health Order affects adult clients
- At least two ways the Mental Health Order affects adult clients should be discussed to achieve the top of this band
- Little or no evidence of analytical writing
- Quality of written communication is basic

Mark Band 2 ([4]–[7])

Overall impression: adequate knowledge and understanding

- Displays adequate knowledge of how the Mental Health Order affects adult clients
- At least two effects should be discussed to achieve in this band and at least three to achieve the top of this band
- Some evidence of analytical writing
- Quality of written communication is good

Mark Band 3 ([8]–[10])

Overall impression: competent knowledge and understanding

- Displays a very good knowledge and understanding of how the Mental Health Order affects adult clients
- Answers at the top of this band should discuss at least four effects of the Order
- Good evidence of analysis
- Effective written communication

Answers may include the following points and should be elaborated by linking to client group:

- The Order details the rights of people who have a mental disorder and the procedure that must be followed in order to provide them with appropriate care so safeguarding the client
- The Order clearly defines mental disorder – it excludes immoral conduct, personality disorder, promiscuity, sexual deviancy, dependence on alcohol or drugs
- Grounds for compulsory admission to hospital are made clear ensuring only those clients who meet specific criteria can be detained/sectioned therefore protecting clients and their families

- Person detained may find it hard to accept detention and resent family or professionals who completed forms, could affect recovery
- Protects clients' rights by ensuring only specified people can complete forms for detention, e.g. G.P., ASW, nearest relative
- The Order established mental health review tribunals to ensure those who challenge detention can have their argument heard
- The Order places a responsibility on local authorities/area boards for securing the treatment and care needed by clients with mental health problems – this means they are more likely to have their needs met
- Sets out an assessment period which clients do not have to declare, e.g. for insurance or to emigrate – lessens likelihood of discrimination
- Developed a code of practice for mental health staff, thus improving quality of care
- Introduced guardianship to help clients move into the community
- Introduced Approved Social Workers to support the rights of people with mental illness and their relatives
- Established the Mental Health Commission to review the care and treatment of patients
- Crown Court may remand an accused person into the care of the department for admission to hospital for a report on their mental condition

This list is not exhaustive and candidates may use examples other than those identified above – these may be accepted if they are relevant and valid.

[10]

30

- 3 (a) Explain **three** ways voluntary organisations, such as hospices, are funded. (AO1, AO2)

[1] for use of key phrase/s [2] for full explanation

Answers may address any **three** of the following points:

- Fundraising – sponsored walks, etc.
- Commercial sponsorships
- Contracts with government agencies/government grants
- Donations made by individuals or companies
- Bequests/wills
- Events such as coffee mornings, street collections
- Lottery funding
- Partly paid for by clients

(3 × [2])

[6]

- (b) The voluntary and community sector have stated that they want to “protect the sector, strengthen . . . integrity and confidence and (apply) higher standards of transparency and accountability”.

Adapted from: <http://www.ncvo-vol.org.uk/press/releases/?id=1049>

Explain **three** consequences for clients if care organisations do not maintain high standards of care. (AO1, AO2)

[1] for use of key phrase/s [2] for full explanation of any three:–

- Clients may be abused or exploited, e.g. clients may be paying for a service they are not receiving

- Accidents and illnesses may be more likely to happen in organisations which are not scrutinised
- Needs of clients may not be met, so may stop attending therefore have no or limited services
- Staff may not be trained appropriately, e.g. may fail to empower clients, affecting their self-worth
- Where standards of care are poor, clients' health could deteriorate due to neglect
- Discrimination may occur, affecting self-esteem
- Policies may not exist, e.g. complaints policy, therefore clients aren't able to access their rights
- Puts clients at risk, e.g. out of date equipment
- Because service is not regulated charges can be very high – cause debt for clients
- Less likely for abuse/unfair treatment to be brought to the attention of the public so vulnerable clients can be neglected and abused
- Poor reputation may lead to closure – moving to a new setting can be traumatic
- Policies may not exist or are breached, e.g. complaints/confidentiality policies

This list is not exhaustive and candidates may use examples other than those identified above – these may be accepted if they are relevant and valid.

(3 × [2])

[6]

- (c) In caring for people who are terminally ill the “mixed economy of care” approach enables a range of care options to be accessed. Evaluate the “mixed economy of care” in providing services for people who are terminally ill. (AO1, AO2, AO3, AO4)

Mark Band 1 ([0]–[4])

Overall impression: limited understanding

- Displays limited knowledge of the “mixed economy” approach to providing services for people who are terminally ill
- Little or no evidence of analytical writing – only strengths or only weaknesses may be discussed
- Quality of written communication is basic

Mark Band 2 ([5]–[8])

Overall impression: adequate knowledge and understanding

- Displays adequate knowledge of the “mixed economy” approach to providing services for people who are terminally ill
- Adequate evidence of analysis – two strengths and two weaknesses discussed to achieve at the top of this marking band
- Quality of written communication is adequate

Mark Band 3 ([9]–[12])

Overall impression: competent understanding

- Displays a competent knowledge of the “mixed economy” approach to providing services for people who are terminally ill

- Good evidence of analysis – more than three strengths and three weaknesses of the “mixed economy” approach to providing services for adult clients should be discussed to achieve in this mark band
- There must be clear application to people who are terminally ill
- Effective written communication

Answers may address some of the following points:

Strengths of mixed economy of care

- Higher standards of care due to competition
- Greater choice for clients
- Greater flexibility
- Competition means better value for money
- Sense of community strengthened
- Allows social services to have a more focused role
- Less expensive for government

Weaknesses of mixed economy of care

- Service provision can be patchy/haphazard
- Quality may be lowered as services outside the statutory sector are not as well regulated
- Increased costs – private sector needs to make a profit
- Dismantles the welfare state
- Clients using voluntary sector services may feel stigmatised
- Critics argue that clients who have paid tax and national insurance have the right to be cared for by the state
- Can be communication difficulties amongst health care workers from the different sectors
- Some services can be unreliable, e.g. private or voluntary sector services can close down at any time

This list is not exhaustive and candidates may use examples other than those identified above – these may be accepted if they are relevant and valid. [12]

- (d) Discuss how the Care Value Base may be applied by workers caring for adult clients. (AO1, AO2, AO3, AO4)

Mark Band 1 ([0]–[4])

Overall impression: limited understanding

- Displays limited knowledge and understanding of application of CVB
- Lists aspects of CVB or discusses two or less
- Quality of written communication is basic

Mark Band 2 ([5]–[8])

Overall impression: adequate knowledge and understanding

- Displays adequate knowledge and understanding of application of CVB
- Discusses the application of at least three aspects of CVB
- Quality of written communication is good

Mark Band 3 ([9]–[12])

Overall impression: competent knowledge and understanding

- Displays a very good knowledge and understanding of application of CVB

- At the top of this band the application of all five aspects of CVB must be discussed
- Effective written communication

Answers must demonstrate application of the following aspects of the care value Bssc by care workers caring for clients:

- Promotes anti-discriminatory practice
- Promotes client's rights and choices
- Maintains confidentiality of clients
- Respect personal beliefs and identity
- Promotes effective communication

[12]

Total

**AVAILABLE
MARKS**

36

100



Rewarding Learning

ADVANCED SUBSIDIARY (AS)

General Certificate of Education

2009

Health and Social Care

Assessment Unit AS 14

assessing

Unit 14: Understanding Human Physiology

[A3H81]

TUESDAY 9 JUNE, AFTERNOON

**MARK
SCHEME**

1 (a) This is a diagram of the digestive system

(i) Write down the name and **one** function of each of the parts labelled A, B and C. (AO1, AO2)

[1] for name and [1] for one correct function

A: Rectum

Function: Storage of faeces prior to expulsion from body

B: Colon

Function: Re-absorption of water needed by body

C: Stomach

Function: digestion/kills bacteria/mixes/churns food into chyme

(6 × [1]) [6]

(ii) The digestive system produces chemicals called enzymes

Complete the table to describe the function of each of the enzymes listed (AO1, AO2)

| Enzyme | Acts Upon | To Produce |
|----------|-------------|--|
| Amylase | Starch | Maltose (allow glucose where not used for maltose) |
| Lipase | Fats/Lipids | Fatty acids/Glycerol |
| Maltase | Maltose | Glucose |
| Protease | Proteins | Polypeptides/amino acids |

(8 × [1]) [8]

(iii) Explain **two** ways the structure of alimentary canal aids digestion (AO1, AO2)

[1] for key phrase, [2] for full explanation

Any **two**:

- presence of microvilli give a large surface area
- rich network of blood capillaries increases permeability of lining of canal
- epithelial tissue is only one cell thick which aids ease of absorption
- smooth muscle allows peristalsis
- extreme length allows time for digestion
- pits of mucus to aid passage

(2 × [2]) [4]

(b) Daniel is 32. He has a peptic ulcer and takes medication daily.

(i) Write down **two** possible symptoms of a peptic ulcer (AO1)

Any **two**:

- blood in stools/tarry stools
- pain in abdomen
- nausea/vomiting

- bloating in abdomen
- belching/heartburn
- pain in abdomen after eating
- abdominal pain relieved by eating or drinking milk
- abdominal pain mistaken for hunger

(2 × [1])

[2]

(ii) Discuss how a stomach ulcer develops (AO1, AO2)

[1] for correct phrase, [2] for adequate discussion, [3] for full discussion

Answers may include:

- ulcers are caused by acid from rich diet/alcohol/bacterial infection/anti-inflammatory drugs, etc. building up in stomach
- the acid burns a hole/crater/indentation in lining
- this burns into epithelium of stomach lining
- the indentation becomes inflamed as ulcer gets worse
- may become infected

Note: an ulcer is not a swelling

(1 × [3])

[3]

23

2 (a) This diagram gives an overview of the nervous system

Discuss the role of each of the following parts of the nervous system:
(AO1, AO2)

[1] for key phrase, [2] for adequate discussion, [3] for full discussion

Answers to consider:

The Peripheral Nervous System

- controls voluntary responses
- carries messages to and from the CNS
- sensory neurones to the CNS
- motor neurones from the CNS
- explained example – lifting a pen or other/correct voluntary example

The Autonomic Nervous System

- controls involuntary actions when at rest
- slows down involuntary responses
- explained example – reduces breathing rate when level of carbon dioxide in blood has returned to normal after exercise

(2 × [3])

[6]

(b) Gita, aged 49, is having tests for endocrine dysfunction so her pancreas and thyroid functions are being investigated.

(i) Write down the name of one hormone secreted by each endocrine gland (AO1)

[1] for one correctly named hormone

Thyroid Thyroxin

Pancreas Insulin/Glucagons

(2 × [1])

[2]

- (ii) Gita is diagnosed as having Type I diabetes. Explain one way Type I diabetes differs from Type II diabetes.

[1] for key phrase, [2] for full explanation.

Answers to consider:

- Type I is juvenile onset
- Type II is late/maturity onset
- Type II is linked to lifestyle, i.e. a sugar-filled diet/lack of exercise
- Type I can be hereditary
- Type I is usually insulin dependant
- Type II is usually diet and lifestyle controlled
- Type I insulin injections
- Type II tablets

(1 × [2])

[2]

- (iii) Gita balances working part-time with looking after her three children. Gita's hobbies include cooking, reading and knitting.

Analyse the possible impact of Type II diabetes on Gita's lifestyle

(AO1, AO2, AO3, AO4)

Mark Band 1 ([0]–[4])

Overall impression: basic understanding

- Displays limited knowledge of the impact of diabetes on Gita's life
- Discusses two effects on her life
- Written communication is basic

Mark Band 2 ([5]–[8])

Overall impression: adequate knowledge and understanding

- Displays adequate knowledge of the impact of diabetes on Gita's life
- Discusses three effects on her life
- Written communication is good

Mark Band 3 ([9]–[12])

Overall impression: competent knowledge and understanding

- Displays good knowledge of the impact of diabetes on Gita's life
- Discusses at least four effects on her life
- Written communication is effective

Answers may include the following points:

- Gita will have to learn to monitor her blood sugar levels and take her medication when needed
- She will have to be careful with her diet and eat regularly
- This may mean that she needs to change her eating habits
- She may enjoy this as she enjoys cookery
- She may have to plan activities around her medical needs
- This may make it more difficult to facilitate her children's needs
- She may take up exercising to help control her diabetes
- She may, in consequence, make new friends
- She may feel depressed about her condition
- There are some jobs she may not be able to do
- She will have to take care when driving
- tell her employer

- Gita may join a self-help group
- This could help her manage her diabetes and help her self-confidence
- She may suffer from secondary conditions, e.g. eyes, feet
- She will have to ensure that she takes care of herself
- She will have to attend the diabetes clinic regularly [12]

(iv) Gita also had a reflex test which was done by tapping her knee with a small hammer.

Use the diagram below to discuss how Gita's nervous system should respond to the test (AO1, AO2, AO3)

Mark Band 1 ([0]–[2])

Overall impression: basic understanding

- Displays limited knowledge of the nervous system's response
- Discusses one part of the response
- Written communication is basic

Mark Band 2 ([3]–[4])

Overall impression: adequate knowledge and understanding

- Displays adequate knowledge of the nervous system's response
- Discusses two parts of the response
- Written communication is good

Mark Band 3 ([5]–[6])

Overall impression: competent knowledge and understanding

- Displays good knowledge of the nervous system's response
- Discusses at least three parts of the response
- Written communication is excellent

Answers to consider:

- This is an example of a reflex arc
- Sensory receptors in the skin detect the hammer blow
- A nerve impulse is passed along a sensory neurone to the spinal cord
- The brain is not involved at the time but is informed after the event
- An association/relay/connecting neurone in the spinal cord passes the impulse on
- The impulse travels along a motor neurone to the leg muscles
- When the impulse reaches the leg muscle it makes the muscle contract
- This makes the lower leg rise [6]

28

3 This is a diagram of a human body cell

- (a) Write down the name and one function of the parts labelled A, B and C [1] for each part and [1] for one correct function for each part (AO1, AO2)
A: Nucleolus (do **not** accept nucleus because it is in the question)
Function: Cell division/initial stage of ribosome development/genetic information

B: Vesicle

Function: takes fluid and dissolved substances into cytoplasm

C: Cell/Plasma Membrane

Function: Limits cell size/Regulates entry/exit of materials into cell/

Selective barrier

(6 × [1])

[6]

- (b) (i) Katya has been diagnosed with cirrhosis of the liver.
Explain one cause of cirrhosis of the liver (AO1, AO2)
[1] for key phrase, [2] for full explanation

Any **one**:

- cirrhosis is the destruction of normal liver cells
- scar tissue forms in place of normal cells
- the liver cannot repair this damage
- hepatitis is the most common cause
- alcohol abuse is another common cause
- bile duct blockage can damage liver cells too

(1 × [2])

[2]

- (ii) Write two symptoms of cirrhosis of the liver (AO1)
[1] For each correct symptom. Two answers are needed.

Any **two**:

- poor appetite and weight loss
- yellowing of the skin/discolouration
- nausea/vomiting
- asymptomatic
- tired/weak
- oedema/swollen with fluid/bloating
- easy bruising
- jaundice

(2 × [1])

[2]

- (iii) Katya's doctors are concerned with her state of health as the liver has several important functions in the body.
Explain the role of the liver in digestion (AO1, AO2)

[1] for key phrase [2] for full explanation

Answers to consider:

- bile is made in the liver
- bile passes into the duodenum via the bile duct
- bile contains bile salts not enzymes
- bile salts help to digest fat by breaking them up (emulsifying)

(1 × [2])

[2]

- (iv) Discuss how the liver aids the elimination of poisons from the body by deamination (AO1, AO2, AO3)

[1] for key phrase, [2] for adequate discussion, [3] for full discussion

Answers to consider:

- absorbed food is carried in the blood to the liver
- amino acids needed by the body are returned to the blood
- excess amino acids are broken up in the liver by enzymes into carbohydrate and ammonia

- this is done so that the energy they contain can be stored as fat or carbohydrate until used
- the other part, ammonia, is converted into urea
- urea is excreted via the kidneys

(1 × [3])

[3]

(c) Sean is always very thirsty and drinks lots of water.

Discuss how Sean's body regulates his water balance after drinking so much water (AO1, AO2, AO3, AO4)

Mark Band 1 ([0]–[3])

Overall impression: basic understanding

- Displays limited knowledge of the regulation of water balance by the body
- Discusses one stage of the process of regulation
- Written communication is basic

Mark Band 2 ([4]–[6])

Overall impression: adequate knowledge and understanding

- Displays adequate knowledge of the regulation of water balance by the body
- Discusses two stages of the process of regulation
- Written communication is good

Mark Band 3 ([7]–[9])

Overall impression: competent knowledge and understanding

- Displays good knowledge of the regulation of water balance by the body
- Discusses at least three stages in the process of regulation
- Written communication is effective

Answers may include the following points:

- The level of water in blood is detected by osmoreceptors in the hypothalamus
- When the balance is low a nerve message passes from the hypothalamus to the pituitary gland
- The pituitary gland releases the hormone ADH into the blood
- This hormone is carried to the kidneys where it increases the reabsorption of water back into the blood
- As a consequence thick salty urine is produced
- When the water level in the blood rises this is also detected by the osmoreceptors
- The hypothalamus stops sending messages so frequently to the pituitary gland
- Less ADH is released
- The kidneys reabsorb less water into the blood
- Urine is more dilute
- Role of cerebellum in instigating thirst

[9]

24

4 (a) Jack aged 70, has glaucoma resulting in limited vision.

(i) Write down **two** symptoms of glaucoma (AO1)

[1] For each correctly named symptom.

Any **two**:

- rapid deterioration of sight
- intense pain in eye
- redness and watering of eyes
- sensitivity to bright light
- haloes seen around lights
- nausea and vomiting

(2 × [1])

[2]

(ii) Discuss what happens in the eye to cause glaucoma (AO1, AO2)

[1] For key phrase, [2] for adequate discussion [3] for full discussion

Answers to consider:

- the flow of fluid out of the eye is blocked
- pressure builds up inside the eye
- this pressure damages the nerve fibres in the retina

(1 × [3])

[3]

(iii) Explain how the eye accommodates to see far objects (AO1, AO2)

[1] For key phrase, [2] for full explanation

Answers to consider:

- the suspensory ligament tautens
- the ciliary muscle relaxes
- the lens is stretched thin

(1 × [2])

[2]

(b) An optician has kept records of her clients' ability to read at near distances with age. The table below summarises her results:

| AVERAGE AGE (years) | AVERAGE NEAREST READING DISTANCE (cm) |
|---------------------|---------------------------------------|
| 10 | 6 |
| 15 | 7 |
| 40 | 25 |
| 50 | 50 |
| 60 | 55 |
| 70 | 55 |

Use the table to analyse the relationship between age and average reading distance (AO2, AO3, AO4)

Mark Band 1 ([0]–[2])

Overall impression: basic understanding

- Displays limited knowledge of the functioning of the eye
- Discusses one trend from the table
- Written communication is basic
- lists several trends no discussion

Mark Band 2 ([3]–[4])

Overall impression: adequate knowledge and understanding

- Displays adequate knowledge of the functioning of the eye
- Discusses two trends from the table
- Written communication is good

Mark Band 3 ([5]–[6])

Overall impression: competent knowledge and understanding

- Displays good knowledge of the functioning of the eye
- Discusses at least three trends from the table
- Written communication is excellent

Answers may include:

- The very young can read near objects at very close distances
- The elasticity of the lens is good and it accommodates well
- By 40 years near vision is still good
- the eye still accommodates well but some elasticity has been lost
- Beyond this age elasticity deteriorates rapidly
- Clients of 50 and over struggle to view near objects
- most will need glasses to read

[6]

(c) Last winter Molly, aged 90, was admitted to hospital with hypothermia

(i) Discuss what is meant by hypothermia (AO1, AO2)

[1] for key phrase [2] for adequate explanation, [3] for full discussion

Answers to consider:

- hypothermia is body temperature below normal range at core
- hypothermia is a low body temperature which the body's mechanisms cannot restore to normal range
- it is a core temperature of less than 35 °C

(1 × [3])

[3]

(ii) Discuss why older people like Molly can be more at risk of developing hypothermia than younger adults (AO3, AO4)

Mark Band 1 ([0]–[3])

Overall impression: basic understanding

- Displays limited knowledge of the risk to older people of hypothermia
- Discusses one factor that may affect older people
- written communication is basic

Mark Band 2 ([4]–[6])

Overall impression: adequate knowledge and understanding

- Displays adequate knowledge of the risk to older people of hypothermia
- Discusses two factors that may affect older people
- Written communication is good

Mark Band 3 ([7]–[9])

Overall impression: competent knowledge and understanding

- Displays good knowledge of the risk to older people of hypothermia
- Discusses at least **three** factors that may affect older people
- Written communication is excellent

Answers may include:

- Lack of knowledge of their entitlement to government support
- Lack of knowledge about the dangers/symptoms of hypothermia
- Malnourished – cannot afford good quality food
- Underweight
- Pride in not asking for support
- Few family/friends to help support them
- Reduced financial circumstances post-retirement, i.e. cannot afford to heat home
- Inability to cope with upkeep of home in old age
- Thinner skin so more susceptible to cold
- Not as mobile
- Upbringing/culture – more tolerant of cold
- Less likely to “waste” money by turning up heating

[9]

25

Total

100

AVAILABLE
MARKS